

UGS CONNECTION



AMERICAS 2008



Siemens PLM Software

SIEMENS



Data Migration for Teamcenter Applications

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1. PRION Group – Our PLM Experience
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3. Approach, Tools & Best Practices for Migration
4. Results & Benefits to Customers
5. Other related Projects, References & Contact data



Content of Presentation

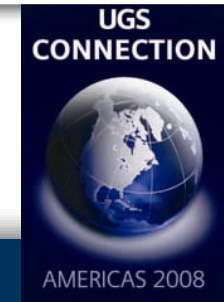


PRION Group – Our PLM Experience

Who we are – and who we serve



PRION – Worldwide PLM service provider



PRION GmbH and **PRION Consulting Services AG**, Stuttgart, Germany

PRION Schweiz AG, Zurich, Switzerland

PRION India Pvt. Ltd., Bangalore, India

PRION USA, Los Angeles, USA

PRION France, Paris, France, start in Q3 2008

PRION UK, London, United Kingdom, start in Q3 2008

150+ associates



Customers: Worldwide

<u>Germany:</u>	Hamburg, Munich, Stuttgart, Dresden, Cologne, Nuremberg, Ruesselsheim, Ingolstadt Regensburg, Bamberg, Wolfsburg
<u>Switzerland:</u>	Zurich, Basel, Winterthur
<u>UK:</u>	Blackpool, Derby
<u>France:</u>	Paris, Belfort
<u>Italy:</u>	Genoa
<u>Spain:</u>	Madrid
<u>Poland:</u>	Elblag, Wroclaw
<u>Turkey:</u>	Istambul
<u>China:</u>	Shanghai
<u>India:</u>	New Delhi, Bangalore, Mumbai, Pune
<u>USA:</u>	Grand Rapids, Seattle, Pasadena/LA, Detroit



PRION Group PLM Services & Experiences



PLM Strategy & Process Consulting

- PLM strategy formulation based on company business objectives
- PLM potential analysis: Measurable benefits
- Optimizing the engineering process chain: Lean Development, Six Sigma, Critical Chain
- Next Generation PLM: Optimizing the value of existing PLM systems
- Design of PLM solutions: From strategy to process level concepts, from requirements to application landscape definition
- PLM process modelling: Efficient product development processes, agile engineering, change management based on CMII

PLM Application Implementation

- UGS Teamcenter Enterprise
- UGS Teamcenter Engineering
- UGS Teamcenter Manufacturing / eMPlanner
- UGS Teamcenter Systems Engineering
- UGS Teamcenter Project
- Teamcenter Integration of CAD systems like CATIA, UGS, AutoCad, I-Deas, SolidEdge
- Cost-optimized Onsite/Offshore Model for application implementation with PRION India

Data Migration

- **PRIMA:** PRION Metadata migration tool to TC Eng & Ent from any legacy system
 - Minimum downtime of production systems, flexible & reversible
 - automated & cost-effective framework
 - Proven and tested many times up to several terabytes of data volume
 - Can be used for arbitrary source and target systems
 - Setup in one week – then ready to go
- CAD Model Translations: with *Elysium*: CATIA V4/5, I-Deas to UG, e.g.

PLM & IT Training

- PLM Systems: Teamcenter Enterprise/Engineering, Teamcenter Administration, Customizing, Core Application, ThinClient-Customizing, Advanced System Architecture & Performance Tuning
- CAX: UGS NX, I-Deas, SolidEdge
- Oracle Databases: Administration, SQL Access Optimization, Backup & Recovery, Server Tuning
- UNIX and Windows Administration

PLM & IT Operations

For the following applications:

- UGS Teamcenter Enterprise/Engineering,
- Databases: Oracle, Microsoft SQL server
- all UNIX derivatives and Windows versions
- Hotline/HelpDesk and 1st, 2nd, 3rd-Level-Support
- Use of an ITIL-based operations concept
- Operation in Onsite/Offshore Model if required

Software Development

- Project Management services
- System integration for web applications, EAI, client/server-systems + interfaces
- C++, C#.Net, Visual Basic
- Java, XML, VXML
- Visual Studio 5/6, TestDirector
- Databases: Oracle, MS SQL Server, MS Access, MySQL, Postgres
- Reporting & long term archive solutions
- ITIL-based organizational consulting
- CMMI based onsite/offshore SW develop.

Selection of satisfied customers:



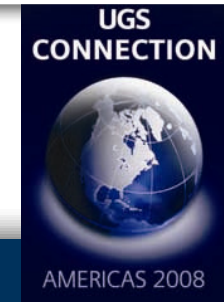
Business Challenge in PLM Data Migration

Why Data Migration is key in PLM Projects?

Why Customer want to migrate data ?

- Customers want to leverage Intellectual Property (“IP”) as stored & managed in to be replaced systems
- Customers want to avoid data redundancy (inconsistency problem; data maintenance work)
- Customers want to have all data in one central application (i.e. training costs for users, access time...)

Business Challenge when migrating data



- Teamcenter Target system with its final data model is not defined or “stable” until very late stage of Go Live (= Switch Over milestone)
- Data to be migrated will be “manipulated”/created until very last moment in existing (old) applications
- Bad data quality – don't start with bad quality in new TC Solution; no experience how to “judge” data quality
- Several data sources to be merged hold partly redundant and partly inconsistent data records: rule definition?
- Knowledge of new TC target application is not available in customer (IT) organization (system attributes)

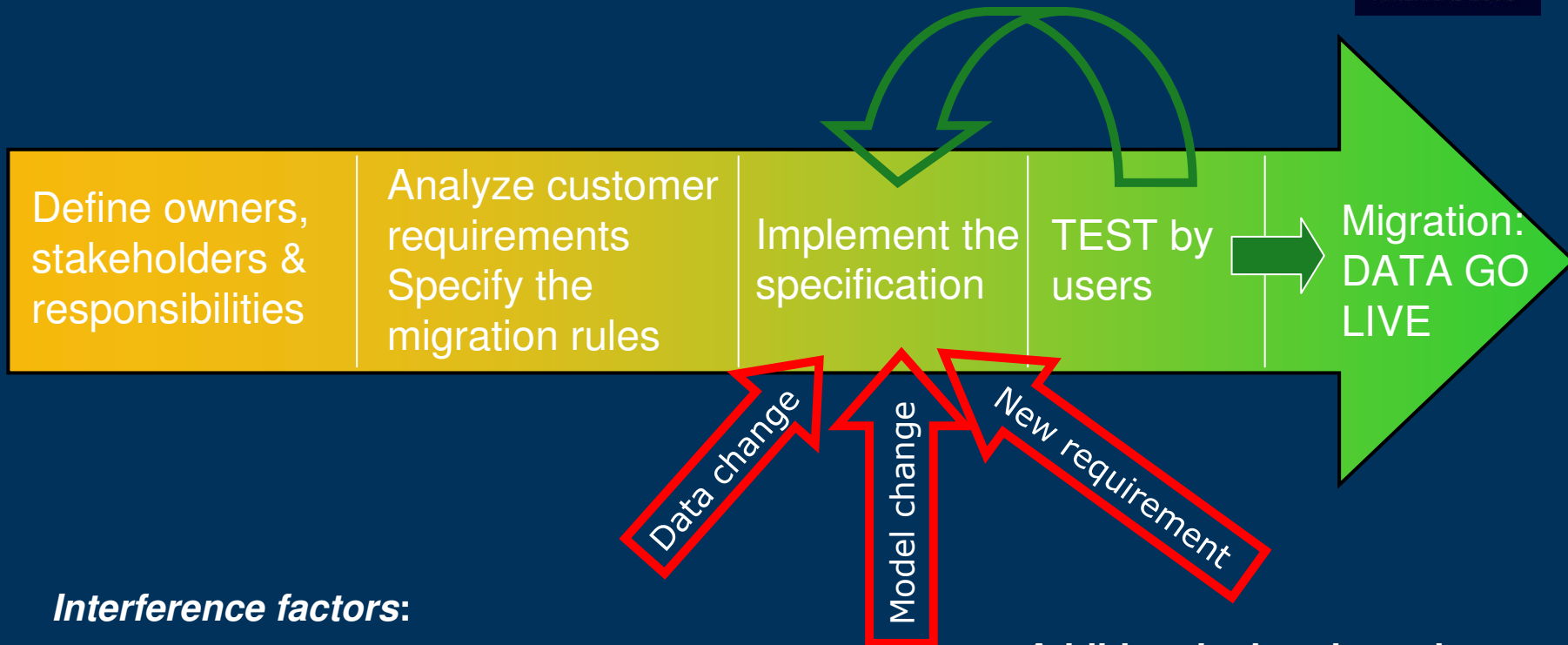
Success Factor Summary



- HUMAN FACTOR: Involving/Leverage of Teamcenter Data Migration experts will lead to cost savings and better ROI. Include end users.
- PROCESS FACTOR: See a Data Migration as a full project and follow defined processes in order to manage surprises.
- TOOL FACTOR: Experience has shown that use of a data migration tool will significantly improve quality and end user satisfaction with data migrated

Teamcenter Data Migration Approach, Tools & Best Practices

Data Migration **MUST** be seen as a Project



Interference factors:

Changes of

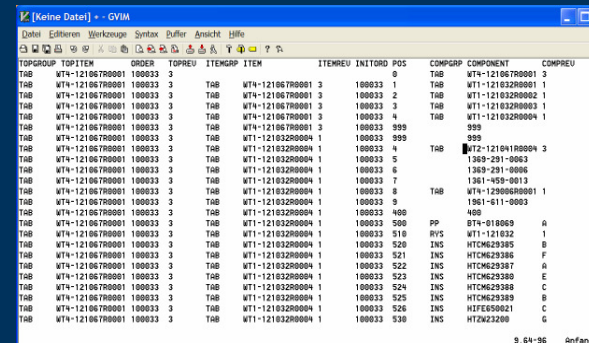
- ✓ the input data in format and amount
- ✓ the target model
- ✓ the migration rules

Additional migration rules usually during

- ✓ Implementation phase
- ✓ Test phase

PHASE I: ANALYZE

- ✓ Define data scope for migration
- ✓ Understand / Identify data sources in scope
- ✓ Understand target data model of TC solution
- ✓ Understand Analyze data quality



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PHASE II: DEFINE

- ✓ Define delivery format for data to be migrated
- ✓ Define rule set for migration (data cleansing)
- ✓ Define data migration test approach



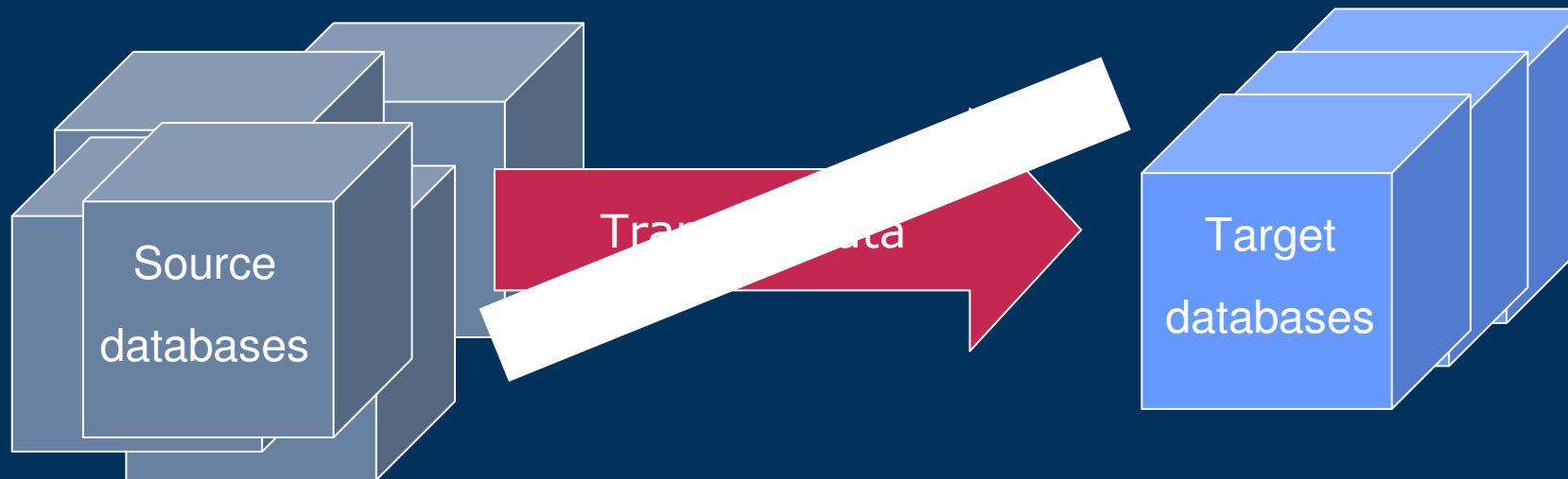
- ✓ Clean source data (i.e. field delimiter, special characters)
- ✓ Implement rule / translation code
- ✓ Perform testing with test system

PHASE IV: MIGRATE

- ✓ perform migration + final test

Data Migration for Teamcenter Applications - *Chris Bleill, PRION Group*

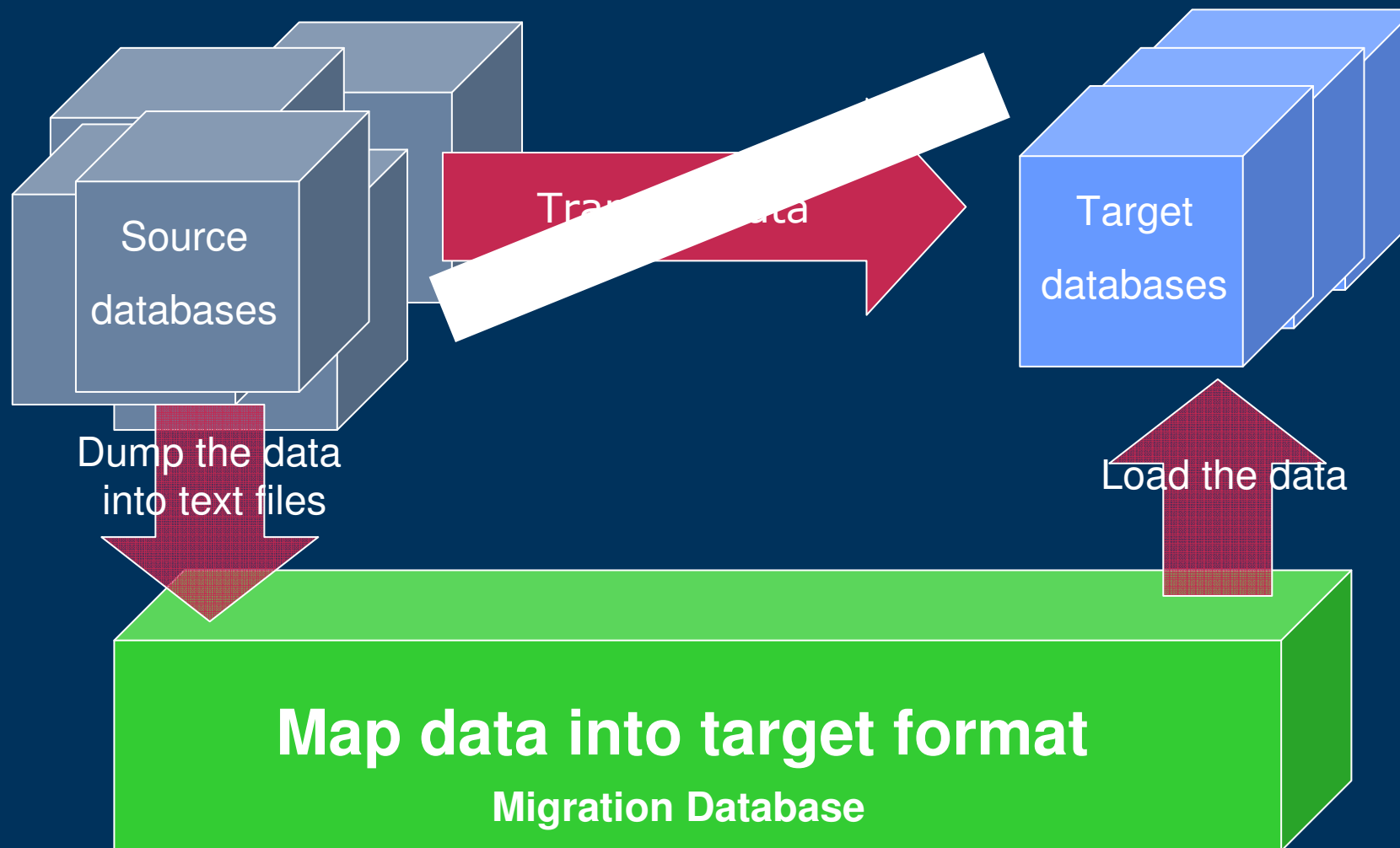
Data Migration – *The Mission Impossible*



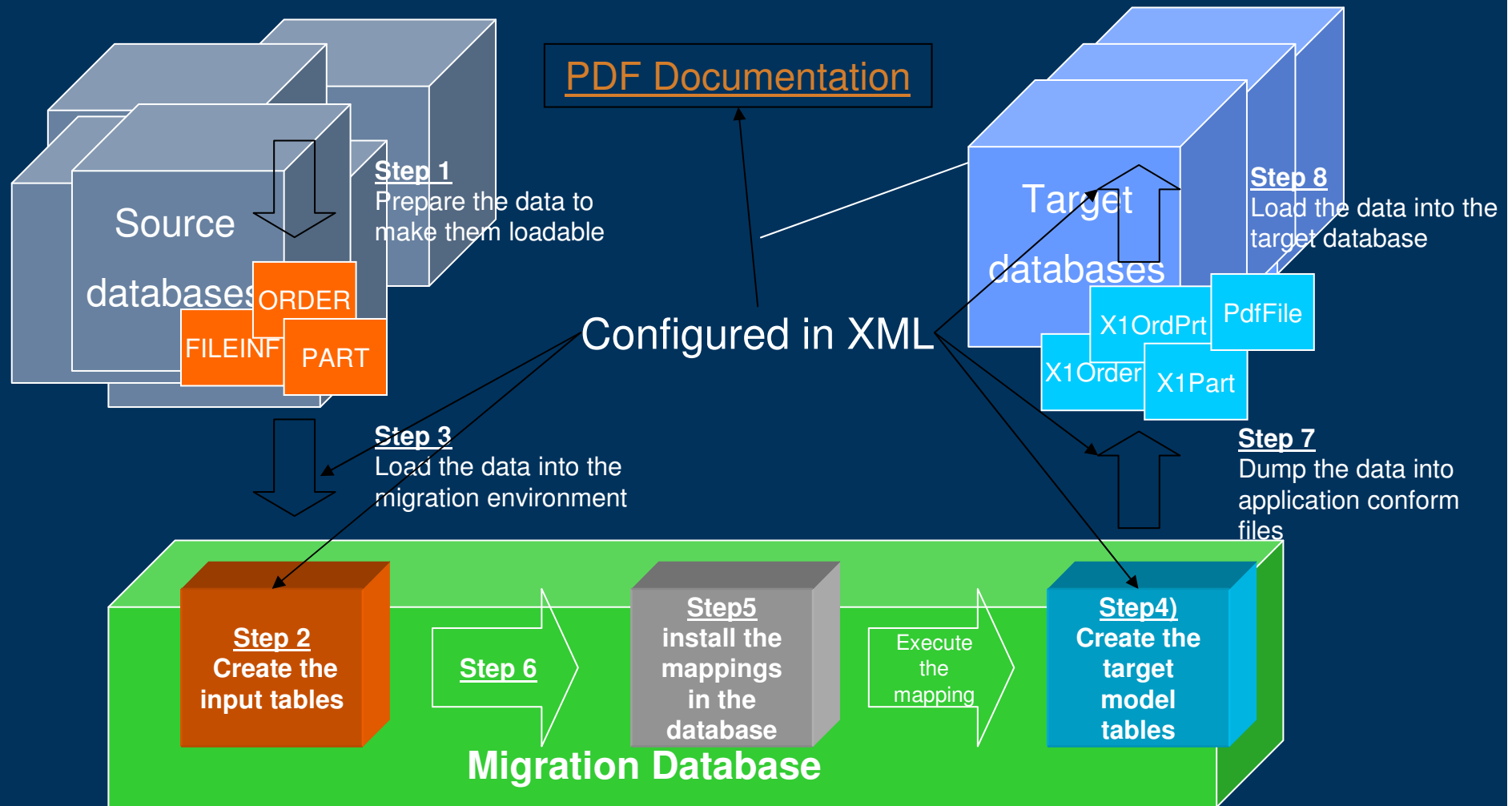
“Make the mission possible”:

- ✓ Separate the migration into steps
- ✓ Use an intermediate database

Data Migration – *The Mission Possible*



Workflow with a professional Data Migration Tool (i.e. PRIMA)



Approach: Phases for TC Data Migration



PHASE I: ANALYZE

- ✓ Define data scope for migration
- ✓ Understand / Identify data sources in scope
- ✓ understand target data model of TC solution
- ✓ Analyze data quality

PHASE II: DEFINE

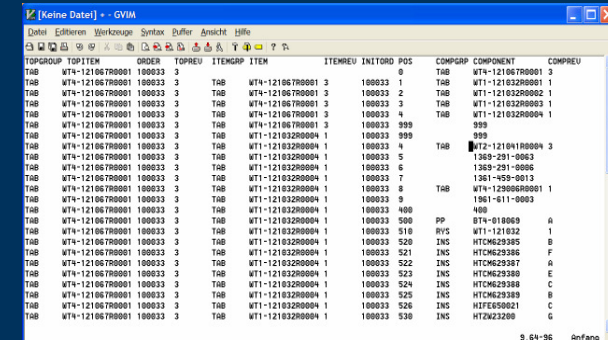
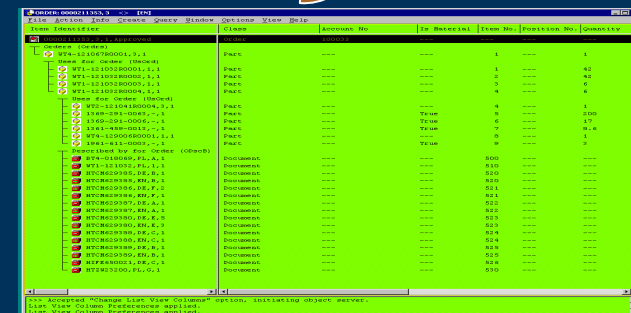
- ✓ Define delivery format for data to be migrated
- ✓ Define rule set for migration (data cleansing)
- ✓ Define data migration test approach

PHASE III: PREPARE, PROGRAM & TEST

- ✓ clean source data (i.e. clean EOF, hex codes)
- ✓ implement rule / translation code
- ✓ perform testing with test system
- ✓ freeze data model of target TC solution

PHASE IV: MIGRATE

- ✓ perform migration + final test

Results & Benefits to Customers



Results & Benefits to Customer



Good Data Migration will lead to

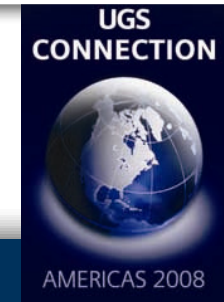
- Direct cost savings
- Better ROI
- Better data quality
- Higher user acceptance
- Faster Teamcenter system availability

Customer Value Statement :

"The Data Migration experience provided by the PRION consultants has been essential for the success of the overall project. The project time plan has been hit on the point"

References and Data Migration Expertise

Why PRION Group understands Data Migration



- ✓ PRION Group has 9 years of experience in migration projects, e.g.:
Power Plant Design: Legacy ⇒ Teamcenter Enterprise (Switzerland)
High Tech Electronic: Legacy ⇒ Teamcenter Engineering (Germany)
- ✓ Data Migration needs dedicated skills (= data migration) experts to meet management expectations
- ✓ Availability of data migration tools guarantees efficient, cost and risk reduced (optimized) data migrations
- ✓ Migrations with a total volume of approx. 10 million objects have been executed successfully and in due time

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THANK YOU !

For further information please contact

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